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NEWS 1 Web Page URLs for STN Seminar Schedule - N. America  
NEWS 2 "Ask CAS" for self-help around the clock  
NEWS 3 May 12 EXTEND option available in structure searching  
NEWS 4 May 12 Polymer links for the POLYLINK command completed in REGISTRY  
NEWS 5 May 27 New UPM (Update Code Maximum) field for more efficient patent SDIs in Cplus  
NEWS 6 May 27 Cplus super roles and document types searchable in REGISTRY  
NEWS 7 Jun 28 Additional enzyme-catalyzed reactions added to CASREACT  
NEWS 8 Jun 28 ANTE, AQUALINE, BIOENG, CIVILENG, ENVIROENG, MECHENG, and WATER from CSA now available on STN(R)  
NEWS 9 Jul 12 BEILSTEIN enhanced with new display and select options, resulting in a closer connection to BABS  
NEWS 10 Jul 30 BEILSTEIN on STN workshop to be held August 24 in conjunction with the 228th ACS National Meeting  
NEWS 11 AUG 02 IFIPAT/IFIUDB/IFICDB reloaded with new search and display fields  
NEWS 12 AUG 02 Cplus and CA patent records enhanced with European and Japan Patent Office Classifications  
NEWS 13 AUG 02 STN User Update to be held August 22 in conjunction with the 228th ACS National Meeting  
NEWS 14 AUG 02 The Analysis Edition of STN Express with Discover! (Version 7.01 for Windows) now available  
NEWS 15 AUG 04 Pricing for the Save Answers for SciFinder Wizard within STN Express with Discover! will change September 1, 2004  
  
NEWS EXPRESS JULY 30 CURRENT WINDOWS VERSION IS V7.01, CURRENT MACINTOSH VERSION IS V6.0c(ENG) AND V6.0Jc(JP), AND CURRENT DISCOVER FILE IS DATED 26 APRIL 2004  
NEWS HOURS STN Operating Hours Plus Help Desk Availability  
NEWS INTER General Internet Information  
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NEWS PHONE Direct Dial and Telecommunication Network Access to STN  
NEWS WWW CAS World Wide Web Site (general information)

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FILE 'HOME' ENTERED AT 08:36:01 ON 09 AUG 2004

=> file reg

COST IN U.S. DOLLARS	SINCE FILE ENTRY	TOTAL SESSION
FULL ESTIMATED COST	0.21	0.21

FILE 'REGISTRY' ENTERED AT 08:36:10 ON 09 AUG 2004

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Property values tagged with IC are from the ZIC/VINITI data file

provided by InfoChem.

STRUCTURE FILE UPDATES: 7 AUG 2004 HIGHEST RN 723734-66-5  
 DICTIONARY FILE UPDATES: 7 AUG 2004 HIGHEST RN 723734-66-5

TSCA INFORMATION NOW CURRENT THROUGH MAY 21, 2004

Please note that search-term pricing does apply when  
 conducting SmartSELECT searches.

Crossover limits have been increased. See HELP CROSSOVER for details.

Experimental and calculated property data are now available. For more  
 information enter HELP PROP at an arrow prompt in the file or refer  
 to the file summary sheet on the web at:  
<http://www.cas.org/ONLINE/DBSS/registryss.html>

=>

L1 STRUCTURE UPLOADED

=> d l1

L1 HAS NO ANSWERS

L1 STR

=> s l1

SAMPLE SEARCH INITIATED 08:40:16 FILE 'REGISTRY'

SAMPLE SCREEN SEARCH COMPLETED - 3 TO ITERATE

100.0% PROCESSED 3 ITERATIONS

0 ANSWERS

SEARCH TIME: 00.00.01

FULL FILE PROJECTIONS: ONLINE \*\*COMPLETE\*\*

BATCH \*\*COMPLETE\*\*

PROJECTED ITERATIONS: 3 TO 163

PROJECTED ANSWERS: 0 TO 0

L2 0 SEA SSS SAM L1

=> s l1 full

THE ESTIMATED SEARCH COST FOR FILE 'REGISTRY' IS 155.00 U.S. DOLLARS

DO YOU WANT TO CONTINUE WITH THIS REQUEST? (Y)/N or END:y

FULL SEARCH INITIATED 08:40:20 FILE 'REGISTRY'

FULL SCREEN SEARCH COMPLETED - 67 TO ITERATE

100.0% PROCESSED 67 ITERATIONS

0 ANSWERS

SEARCH TIME: 00.00.01

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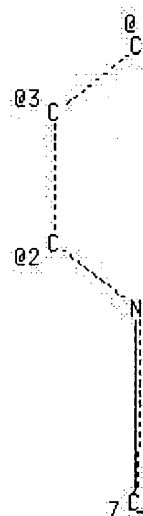
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=> d l4

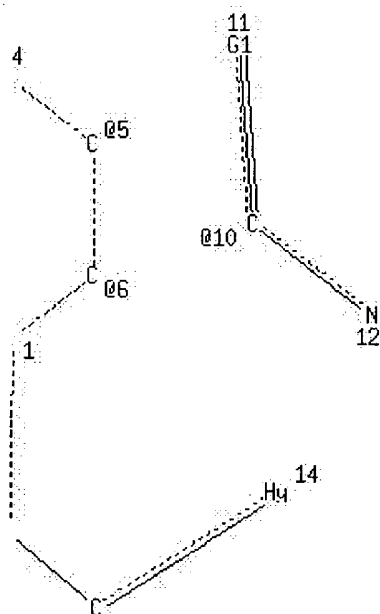
L4 HAS NO ANSWERS

L4 STR

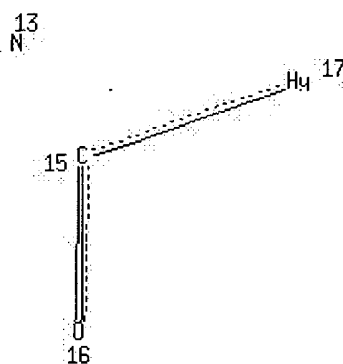
0 18 S 19



Page 1-A



Page 1-B



Page 2-B

VAR G1=18/19

VPA 10-2/3/4/5/6 S

NODE ATTRIBUTES:

NSPEC IS R AT 1

h eb c g cg b cg

eb

NSPEC IS R AT 2  
 NSPEC IS R AT 3  
 NSPEC IS R AT 4  
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 DEFAULT MLEVEL IS ATOM  
 MLEVEL IS CLASS AT 7 8 10 15 16 18 19  
 GGCAT IS UNS AT 14  
 DEFAULT ECLEVEL IS LIMITED  
 ECOUNT IS E4 C E1 S AT 14

## GRAPH ATTRIBUTES:

RSPEC I  
 NUMBER OF NODES IS 19

STEREO ATTRIBUTES: NONE

=> s 14

SAMPLE SEARCH INITIATED 08:44:59 FILE 'REGISTRY'  
 SAMPLE SCREEN SEARCH COMPLETED - 30 TO ITERATE

100.0% PROCESSED 30 ITERATIONS 0 ANSWERS  
 SEARCH TIME: 00.00.01

FULL FILE PROJECTIONS: ONLINE \*\*COMPLETE\*\*  
 BATCH \*\*COMPLETE\*\*

PROJECTED ITERATIONS: 272 TO 928  
 PROJECTED ANSWERS: 0 TO 0

L5 0 SEA SSS SAM L4

=> s 14 full

THE ESTIMATED SEARCH COST FOR FILE 'REGISTRY' IS 155.00 U.S. DOLLARS  
 DO YOU WANT TO CONTINUE WITH THIS REQUEST? (Y)/N or END:y  
 FULL SEARCH INITIATED 08:45:03 FILE 'REGISTRY'  
 FULL SCREEN SEARCH COMPLETED - 587 TO ITERATE

100.0% PROCESSED 587 ITERATIONS 13 ANSWERS  
 SEARCH TIME: 00.00.01

L6 13 SEA SSS FUL L4

=> file hcaplus

COST IN U.S. DOLLARS	SINCE FILE ENTRY	TOTAL SESSION
FULL ESTIMATED COST	316.30	316.51

FILE 'HCAPLUS' ENTERED AT 08:45:08 ON 09 AUG 2004

h eb c g cg b cg

eb

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FILE COVERS 1907 - 9 Aug 2004 VOL 141 ISS 7  
 FILE LAST UPDATED: 8 Aug 2004 (20040808/ED)

This file contains CAS Registry Numbers for easy and accurate substance identification.

=> s 16

L7 7 L6

=> d 17, ibib abs fhistr, 1-7

L7 ANSWER 1 OF 7 HCAPLUS COPYRIGHT 2004 ACS on STN

Full  
Text

Chemical  
References

ACCESSION NUMBER: 2003:317444 HCAPLUS  
 DOCUMENT NUMBER: 138:343853  
 TITLE: Preparation of compositions containing pyridinium derivatives for cosmetic and therapeutic applications  
 INVENTOR(S): Sankaranarayanan, Alangudi  
 PATENT ASSIGNEE(S): Torrent Pharmaceuticals Ltd., India  
 SOURCE: Eur. Pat. Appl., 104 pp.  
 CODEN: EPXXDW  
 DOCUMENT TYPE: Patent  
 LANGUAGE: English  
 FAMILY ACC. NUM. COUNT: 1  
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
<u>EP 1304101</u>	A1	20030423	<u>EP 2001-204295</u>	20011112
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR				
<u>AU 766824</u>	B2	20031023	<u>AU 2001-31376</u>	20010328
<u>AU 2001031376</u>	A5	20021003		
<u>JP 2003137783</u>	A2	20030514	<u>JP 2001-344128</u>	20011109
<u>CN 1411809</u>	A	20030423	<u>CN 2001-137440</u>	20011112
<u>CN 1411800</u>	A	20030423	<u>CN 2001-137441</u>	20011112
<u>BR 2001005143</u>	A	20040713	<u>BR 2001-5143</u>	20011112
PRIORITY APPLN. INFO.:			<u>IN 2001-CA605</u>	A 20011019
			<u>IN 2001-CA620</u>	A 20011101

OTHER SOURCE(S): MARPAT 138:343853

AB The invention discloses a new class of compds. particularly pyridinium derivs., which have been found to exhibit triple function of a free radical scavenger (antioxidant), AGE (advanced glycation end product)

breaker and AGE inhibitor, and cosmetic compn. comprising these compds. contained in a cosmetically acceptable carrier. The invention also discloses a method of cosmetic application by applying such compns. The invention further discloses a pharmaceutical compn., comprising the compds. useful in scavenging free radicals from the body cells of a mammal, a method of scavenging free radicals from the body cells of a mammal and a method of treating of diseases caused by accumulation of free radicals in the body cells of a mammal by administering a compn. made with the compds. The invention in addn., also discloses compn. and method for inhibiting AGE in a mammal by use of the compds. of the same group. Thus, a compn. contained pyridinium compd. 0.25, oleic acid 10.0, propylene glycol 70.0, Tween-80 0.1, and EtOH qs to 100.0%.

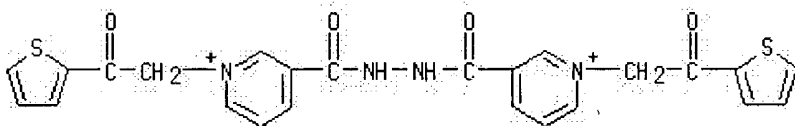
IT 333797-95-8P

RL: COS (Cosmetic use); PAC (Pharmacological activity); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)

(prepn. of compns. contg. pyridinium derivs. for cosmetic and therapeutic applications)

RN 333797-95-8 HCAPLUS

CN Pyridinium, 3,3'-(hydrazodicarbonyl)bis[1-[2-oxo-2-(2-thienyl)ethyl]-, dibromide (9CI) (CA INDEX NAME)



# 2 Br<sup>-</sup>

REFERENCE COUNT:

4

THERE ARE 4 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L7 ANSWER 2 OF 7 HCAPLUS COPYRIGHT 2004 ACS on STN

Full Text References

ACCESSION NUMBER: 2003:118597 HCAPLUS

DOCUMENT NUMBER: 138:153445

TITLE: Preparation of N-oxoethylpyridinium compounds for the management of age-related and diabetic vascular complications

INVENTOR(S): Sankaranarayanan, Alangudi

PATENT ASSIGNEE(S): Torrent Pharmaceuticals Ltd., India

SOURCE: U.S. Pat. Appl. Publ., 29 pp., Cont.-in-part of U. S. Ser. No. 801,778, abandoned.

CODEN: USXXCO

DOCUMENT TYPE: Patent

LANGUAGE: English

FAMILY ACC. NUM. COUNT: 5

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
US 2003032660	A1	20030213	US 2001-939702	20010828
US 6608094	B2	20030819		
WO 2001025208	A1	20010412	WO 1999-IB1683	19991015

W: AE, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CR, CU, CZ, DE, DK, DM, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA,

h

eb c

g cg b

cg

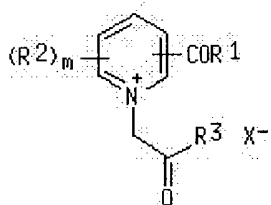
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MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI,  
 SK, SL, TJ, TM, TR, TT, TZ, UA, UG, US, UZ, VN, YU, ZA, ZW, AM,  
 AZ, BY, KG, KZ, MD, RU, TJ, TM  
 RW: GH, GM, KE, LS, MW, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY, DE,  
 DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF,  
 CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG

US 6462057	B1	20021008	US 2000-598410	20000621
US 2001018524	A1	20010830	US 2001-801778	20010309
US 2002103228	A1	20020801	US 2001-995731	20011129
PRIORITY APPLN. INFO.:			IN 1999-CA828	A 19991006
			WO 1999-IB1683	A2 19991015
			US 2000-598410	A2 20000621
			US 2001-801778	B2 20010309
			IN 1999-CA827	A 19991006
			WO 1999-IB1687	A1 19991015
			US 2000-590143	A2 20000609
			US 2001-939702	A1 20010828

OTHER SOURCE(S): MARPAT 138:153445

GI



AB Title compds. [I; R1 = R4R5, NR7NR7R9; R2 = F, Cl, Br, iodo, acyl, CONR7R10, CO2R7, NR7R10, SR7, etc.; R3 = R7, OR7, NR7R10, N:CR7R10, etc.; R4 = NR7R6O, NR7R6NR7, OR6O, OR6NR7; R6 = alkyl; R5 = alkyl aryl, heteroaryl, COR7, SO2R7, CSNHR7, C(NH)NHR7, COR10, etc.; R7 = H, alkyl, aryl, heteroaryl; R9 = H, alkyl, aryl, heteroaryl, COR10, SO2R10, etc.; R10 = H, alkyl, aryl, heteroaryl; X = halide, OAc, ClO4, BF4, PF6, etc.; m = 0-2; with provisos], were prepd. Thus, N,N'-bis(nicotinyl)hydrazine and phenacyl bromide were refluxed 6 h in MeOH/iPrOH to give 60% N,N'-bis[3-carbonyl-1-(2-phenyl-2-oxoethyl)pyridinium]hydrazine dibromide. Tested I gave 13-92.64% advanced glycation end product (AGE) breaking at 1-50 mM. Novel compds. of the pyridinium series useful for the management of diabetes and aging-related vascular and neurovascular complications, including kidney disease, nerve damage, atherosclerosis, retinopathy, inflammatory disorders, immunol. disorders, oxidative stress, dermatol. disorders and discoloration of teeth, by breaking preformed AGE, of the general formula I, or pharmaceutically acceptable salts thereof, wherein, R1, R2, R3, X and m are as defined in the specification.

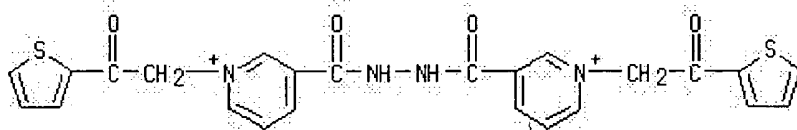
IT **333797-95-8P**

RL: PAC (Pharmacological activity); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)

(claimed compd.; prepn. of N-oxoethylpyridinium compds. for the management of age-related and diabetic vascular complications)

RN **333797-95-8** HCAPLUS

CN Pyridinium, 3,3'-(hydrazodicarbonyl)bis[1-[2-oxo-2-(2-thienyl)ethyl]-, dibromide (9CI) (CA INDEX NAME)

# 2 Br<sup>-</sup>

L7 ANSWER 3 OF 7 HCAPLUS COPYRIGHT 2004 ACS on STN

Full  
TextChem  
References

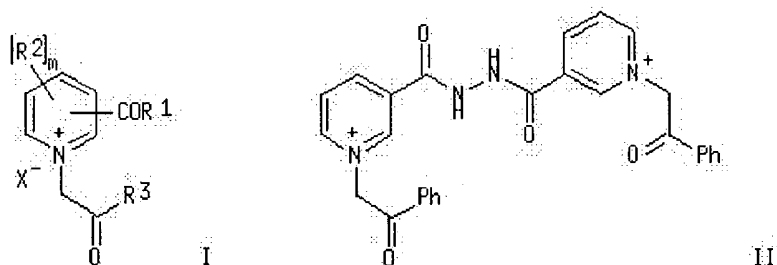
ACCESSION NUMBER: 2002:770131 HCAPLUS  
 DOCUMENT NUMBER: 137:279097  
 TITLE: Preparation of novel pyridinium compounds for the management of aging-related and diabetic vascular complications  
 INVENTOR(S): Sankaranarayanan, Alangudi  
 PATENT ASSIGNEE(S): Torrent Pharmaceuticals, Ltd., India  
 SOURCE: U.S., 10 pp., Cont.-in-part of WO 2001 25,208.  
 CODEN: USXXAM  
 DOCUMENT TYPE: Patent  
 LANGUAGE: English  
 FAMILY ACC. NUM. COUNT: 5  
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
US 6462057	B1	20021008	US 2000-598410	20000621
WO 2001025208	A1	20010412	WO 1999-IB1683	19991015
W: AE, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CR, CU, CZ, DE, DK, DM, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, US, UZ, VN, YU, ZA, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM RW: GH, GM, KE, LS, MW, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG				
US 2001018524	A1	20010830	US 2001-801778	20010309
US 2003032660	A1	20030213	US 2001-939702	20010828
US 6608094	B2	20030819		
US 2002103228	A1	20020801	US 2001-995731	20011129
US 2003092744	A1	20030515	US 2002-214704	20020809
US 6624178	B2	20030923		

## PRIORITY APPLN. INFO.:

IN 1999-CA828	A	19991006
WO 1999-IB1683	A2	19991015
IN 1999-CA827	A	19991006
WO 1999-IB1687	A1	19991015
US 2000-590143	A2	20000609
US 2000-598410	A2	20000621
US 2001-801778	B2	20010309
US 2001-939702	A1	20010828

OTHER SOURCE(S): MARPAT 137:279097  
 GI



AB The title compds. [I; R1 = (un)substituted hydrazino, 2-benzyloxyethoxy, 2-benzyloxyethylamino, etc.; R2 = halo, NO<sub>2</sub>, alkyl, etc.; R3 = 2-thienyl, phenylamino, Ph, etc.; X = halide, acetate, perchlorate, etc.; m = 0-2; with the provisos], useful for the management of diabetes and aging-related vascular complications, including kidney disease, nerve damage, atherosclerosis, retinopathy, dermatol. disorders and discoloration of teeth, by breaking preformed AGE, were prep'd. and formulated. Thus, reacting N,N'-bis-(nicotinoyl)hydrazine with phenacyl bromide in MeOH/iso-PROH afforded 60% II.2Br<sup>-</sup> which showed 13% AGE breakage at 5 mM. Also disclosed is a method of treatment of a diabetic patient by administering the compds. as defined above, either singly or in combination with drugs for antidiabetic therapy.

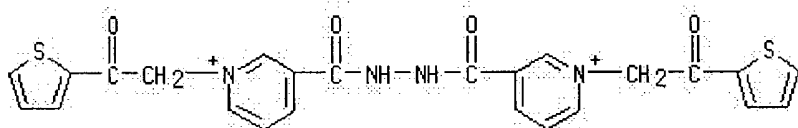
IT **333797-95-8P**

RL: PAC (Pharmacological activity); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)

(prepn. of novel pyridinium compds. for treating diseases caused by diabetes and aging related complications)

RN **333797-95-8** HCAPLUS

CN Pyridinium, 3,3'-(hydrazodicarbonyl)bis[1-[2-oxo-2-(2-thienyl)ethyl]-, dibromide (9CI) (CA INDEX NAME)



102 (a)

# 2 Br<sup>-</sup>

REFERENCE COUNT:

20

THERE ARE 20 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L7 ANSWER 4 OF 7 HCAPLUS COPYRIGHT 2004 ACS on STN

Full Text  
Cited References

ACCESSION NUMBER:

2002:733981 HCAPLUS

DOCUMENT NUMBER:

137:247608

TITLE:

Preparation of pyridinium compounds useful for the treatment of advanced glycation end product (AGE)-related diseases

INVENTOR(S):

Sankaranarayanan, Alangudi

PATENT ASSIGNEE(S):

Torrent Pharmaceuticals Ltd., India

SOURCE:

Eur. Pat. Appl., 42 pp.

CODEN: EPXXDW

DOCUMENT TYPE:

Patent

LANGUAGE:

English

FAMILY ACC. NUM. COUNT:

2

PATENT INFORMATION:

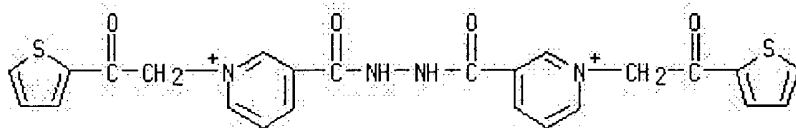
PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
<u>EP 1243581</u>	A1	20020925	<u>EP 2001-201057</u>	20010321
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<u>JP 2002275158</u>	A2	20020925	<u>JP 2001-81819</u>	20010322
<u>CN 1377880</u>	A	20021106	<u>CN 2001-112413</u>	20010330
<u>PRIORITY APPLN. INFO.:</u>			<u>EP 2001-201057</u>	A 20010321

AB Disclosed are novel pyridinium compds. useful for the management of diabetes and aging-related vascular complications, including kidney disease, nerve damage, atherosclerosis, retinopathy, dermatol. disorders and discoloration of teeth. Thus, N-benzenesulfonylisonicotinic hydrazide and EtO<sub>2</sub>CCH<sub>2</sub>Br were refluxed 24 h in Me<sub>2</sub>CHOH to give 60% 1-(2-ethoxy-2-oxoethyl)-4-(phenylsulfonylhydrazinocarbonyl)pyridinium bromide. Title compds. showed 14-95.36% AGE-breaking activity at 1-25 mM.

IT 357625-39-9P  
 RL: PAC (Pharmacological activity); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)  
 (claimed compd.; prepn. of pyridinium compds. useful for treatment of advanced glycation end product (AGE)-related diseases)

RN 357625-39-9 HCAPLUS

CN Pyridinium, 3,3'-(hydrazodicarbonyl)bis[1-[2-oxo-2-(2-thienyl)ethyl]-, dichloride (9CI) (CA INDEX NAME)

# 2 Cl<sup>-</sup>

REFERENCE COUNT: 3 THERE ARE 3 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L7 ANSWER 5 OF 7 HCAPLUS COPYRIGHT 2004 ACS on STN



ACCESSION NUMBER: 2002:727098 HCAPLUS  
 DOCUMENT NUMBER: 137:247606  
 TITLE: Preparation of oxoethylpyridinium halides having AGE breaking activity for treatment of senile disease and complication of diabetes  
 INVENTOR(S): Sankaranarayanan, Alangudi  
 PATENT ASSIGNEE(S): Trent Pharmaceuticals Limited., India  
 SOURCE: Jpn. Kokai Tokkyo Koho, 32 pp.  
 CODEN: JKXXAF  
 DOCUMENT TYPE: Patent  
 LANGUAGE: Japanese  
 FAMILY ACC. NUM. COUNT: 2  
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
<u>JP 2002275158</u>	A2	20020925	<u>JP 2001-81819</u>	20010322
<u>EP 1243581</u>	A1	20020925	<u>EP 2001-201057</u>	20010321

R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT,  
IE, SI, LT, LV, FI, RO, MK, CY, AL, TR

PRIORITY APPLN. INFO.:

EP 2001-201057

A 20010321

OTHER SOURCE(S):

MARPAT 137:247606

AB N,N'-bis[3-carbonyl-1-(2-thien-2'-yl-2-oxoethyl)pyridinium]hydrazine dichloride, N,N'-bis[3-carbonyl-1-(2-cyclopropylamino-2-oxoethyl)pyridinium]hydrazine dichloride, 1-(2-phenylamino-2-oxoethyl)-4-(phenylsulfonylhydrazinocarbonyl)pyridinium chloride or its pharmaceutically acceptable salt, 1-[2-(2',4'-dichlorophenyl)-2-oxoethyl]-3-[2-(methoxy)ethyloxycarbonyl]pyridinium bromide or its pharmaceutically acceptable salt, 1-(2-phenylamino-2-oxoethyl)-3-[(benzoyloxy)ethylaminocarbonyl]pyridinium chloride or its pharmaceutically acceptable salt, and other oxoethylpyridinium halides are prepd. The compds. are useful for treatment of senile disease and complication of diabetes as renal disease, nerve damage, retinopathy, atherosclerosis, microangiopathy, endodermis function disorder, and teeth discoloration. N-(benzenesulfonyl)isonicotinic acid hydrazide (1.0 g) was treated with 0.6 g Et bromoacetate in iso-PrOH under reflux for 24 h to give 1.05 g 1-(2-ethoxy-2-oxoethyl)-4-(phenylsulfonylhydrazinocarbonyl)pyridinium bromide. The compds. showed good breaking activity. at 1-20 mM concn.

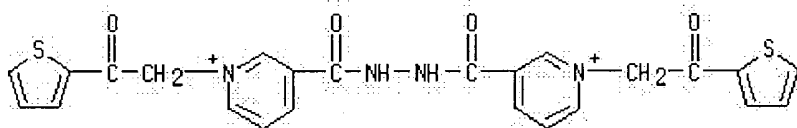
IT 333797-95-8P

RL: PAC (Pharmacological activity); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)

(prepn. of oxoethylpyridinium halides having AGE breaking activity for treatment of senile disease and complication of diabetes)

RN 333797-95-8 HCAPLUS

CN Pyridinium, 3,3'-(hydrazodicarbonyl)bis[1-[2-oxo-2-(2-thienyl)ethyl]-, dibromide (9CI) (CA INDEX NAME)



# 2 Br<sup>-</sup>

L7 ANSWER 6 OF 7 HCAPLUS COPYRIGHT 2004 ACS on STN

Full Text [References](#)

ACCESSION NUMBER: 2001:643433 HCAPLUS

DOCUMENT NUMBER: 135:210943

TITLE: Preparation of novel pyridinium compounds for the management of aging-related and diabetic vascular complications

INVENTOR(S): Sankaranarayanan, Alangudi

PATENT ASSIGNEE(S): India

SOURCE: U.S. Pat. Appl. Publ., 19 pp., Cont.-in-part of U.S. Ser. No. 598,410.

CODEN: USXXCO

DOCUMENT TYPE: Patent

LANGUAGE: English

FAMILY ACC. NUM. COUNT: 5

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
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eb

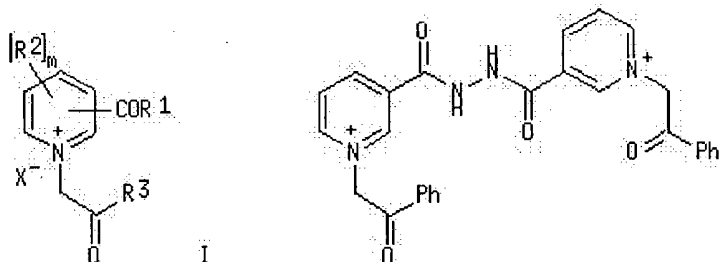
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US 2003032660	A1	20030213	US 2001-939702	20010828
US 6608094	B2	20030819		
US 2002103228	A1	20020801	US 2001-995731	20011129

PRIORITY APPLN. INFO.:

IN 1999-CA828	A	19991006
WO 1999-IB1683	A2	19991015
US 2000-598410	A2	20000621
IN 1999-CA827	A	19991006
WO 1999-IB1687	A1	19991015
US 2000-590143	A2	20000609
US 2001-801778	B2	20010309
US 2001-939702	A1	20010828

OTHER SOURCE(S): MARPAT 135:210943

GI



AB The title compds. [I; R1 = (un)substituted hydrazino, 2-benzyloxyethoxy, 2-benzyloxyethylamino, etc.; R2 = halo, NO<sub>2</sub>, alkyl, etc.; R3 = 2-thienyl, phenylamino, Ph, etc.; X = halide, acetate, perchlorate, etc.; m = 0-2], useful for the management of diabetes and aging-related vascular complications, including kidney disease, nerve damage, atherosclerosis, retinopathy, dermatol. disorders and discoloration of teeth, by breaking preformed AGE, were prepd. Thus, reacting N,N'-bis-(nicotinoyl)hydrazine with phenacyl bromide in MeOH/iso-PrOH afforded 60% II.2Br<sup>-</sup> which showed 13% AGE breakage at 5 mM. Also disclosed is a method of treatment of a diabetic patient by administering the compds. as defined above, either singly or in combination with drugs for antidiabetic therapy.

IT 333797-95-8P

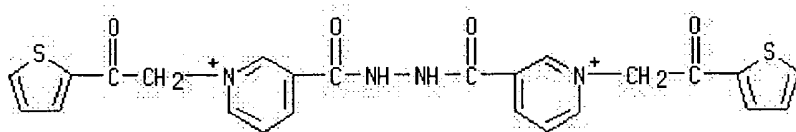
RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)

(prepn. of novel pyridinium compds. for the management of aging-related and diabetic vascular complications)

RN 333797-95-8 HCAPLUS

CN Pyridinium, 3,3'-(hydrazodicarbonyl)bis[1-[2-oxo-2-(2-thienyl)ethyl]-,

dibromide (9CI) (CA INDEX NAME)

# 2 Br<sup>-</sup>

L7 ANSWER 7 OF 7 HCAPLUS COPYRIGHT 2004 ACS on STN

Full  
TextBibliographic  
References

ACCESSION NUMBER: 2001:265392 HCAPLUS  
 DOCUMENT NUMBER: 134:280715  
 TITLE: Preparation of novel pyridinium derivatives for the management of aging-related and diabetic vascular complications  
 INVENTOR(S): Sankaranarayanan, Alangudi  
 PATENT ASSIGNEE(S): India  
 SOURCE: PCT Int. Appl., 46 pp.  
 CODEN: PIXXD2  
 DOCUMENT TYPE: Patent  
 LANGUAGE: English  
 FAMILY ACC. NUM. COUNT: 5  
 PATENT INFORMATION:

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WO 2001025208	A1	20010412	WO 1999-IB1683	19991015
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BR 9913746	A	20020423	BR 1999-13746	19991015
EP 1222171	A1	20020717	EP 1999-973986	19991015
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## PRIORITY APPLN. INFO.:

IN 1999-CA828

A 19991006

IN 1999-CA827

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WO 1999-IB1683

W 19991015

WO 1999-IB1687

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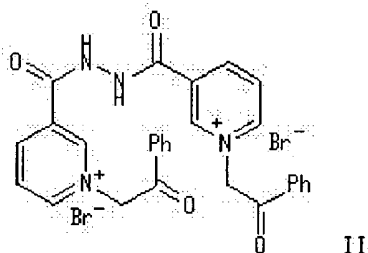
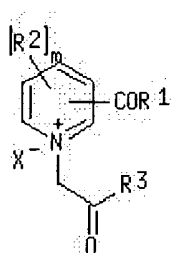
US 2001-939702

A1 20010828

OTHER SOURCE(S):

MARPAT 134:280715

GI



AB The title compds. [I; R1 = R4R5, NR7NR7R9; R2 = F, Cl, Br, etc.; R3 = R7, OR7, etc.; R4 = NR7R6O, NR7R6NR7, OR6O, etc.; R5 = alkyl, aryl, heteroaryl, etc.; R6 = alkyl; R7 = H, alkyl, aryl, etc.; X = halide, acetate, perchlorate, etc.; m = 0-2], useful for the management of diabetes and aging-related vascular complications, including kidney disease, nerve damage, atherosclerosis, retinopathy, dermatol. disorders and discoloration of teeth, by breaking preformed AGE, were prepd. and formulated. Thus, reacting N,N'-bis(nicotinoyl)hydrazine with phenacyl bromide in MeOH/iso-PrOH afforded 60% II which showed 13% AGE breakage at 5 mM. The invention further discloses a method of treatment of a diabetic patient by administering the compds. I, either singly or in combination with drugs for antidiabetic therapy.

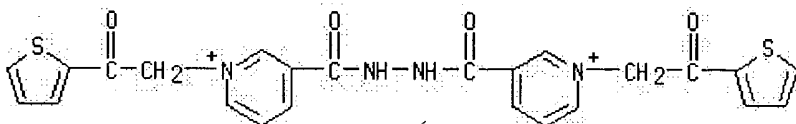
## IT 333797-95-8P

RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)

(prepn. of pyridinium derivs. for the management of aging-related and diabetic vascular complications)

RN 333797-95-8 HCAPLUS

CN Pyridinium, 3,3'-(hydrazodicarbonyl)bis[1-[2-oxo-2-(2-thienyl)ethyl]-, dibromide (9CI) (CA INDEX NAME)



# 2 Br-

REFERENCE COUNT:

13

THERE ARE 13 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

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COST IN U.S. DOLLARS

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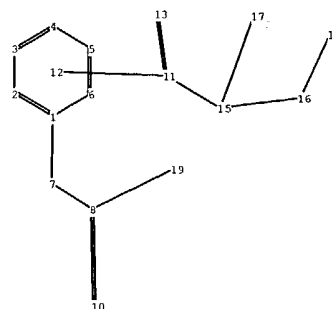
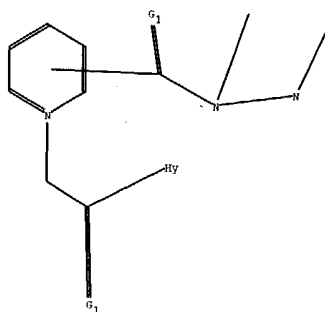
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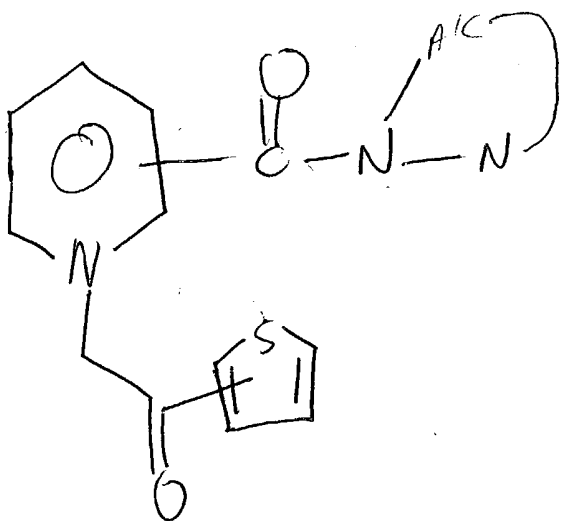


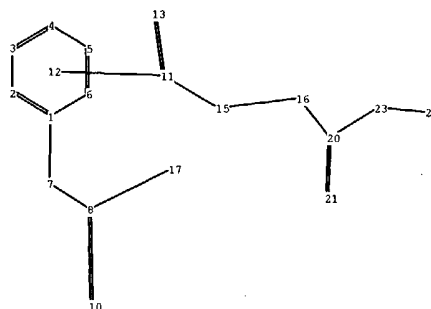
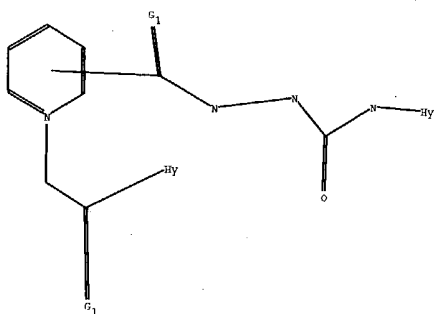
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G1:O,S

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ring nodes :

1 2 3 4 5 6

ring/chain nodes :

15 16 20

chain bonds :

1-7 7-8 8-10 8-17 11-13 11-15 20-21 20-23 22-23

ring/chain bonds :

15-16 16-20

ring bonds :

1-2 1-6 2-3 3-4 4-5 5-6

exact/norm bonds :

1-7 8-10 8-17 11-13 11-15 15-16 16-20 20-21 20-23 22-23

exact bonds :

7-8

normalized bonds :

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isolated ring systems :

containing 1 :

G1:0,S

Match level :

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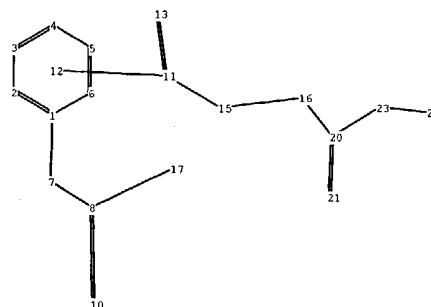
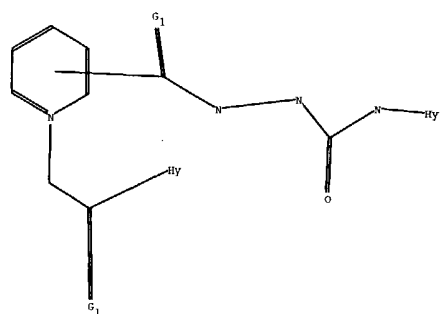
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Saturation : Unsaturated

Element Count :

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Generic attributes :

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Element Count :

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